

## REMARKS

The above amendment is made in response to the Office action of April 25, 2003. Claims 1, 3-7, 9-11, 13, 16-17, 23, 32, and 35-36 have been amended. Claim 2 has been cancelled. Claims 39-42 have been added. No new matter has been introduced. Claims 1 and 3-42 are pending in the present application. Claims 1 and 3-38 stand rejected. The Examiner's reconsideration is respectfully requested in view of the above amendment and the following remarks.

The Office Action objected to the drawings because the drawings contain "hand written elements." No citation was provided supporting such a statement. It should be noted that neither 37 C.F.R. § 1.84 nor MPEP § 608.02 recites any language objecting to "hand written elements" in a drawing. Nevertheless, corrected drawings are submitted herewith. Withdrawal of the objection to the drawings is respectfully requested.

The Office Action objected to the claims, stating that "[a] claim which depends from a dependent claim should not be separated by any claim which does not also depend from the dependent claim (*See e.g.* Claim 32)." The claims have been properly amended such that the claims that depend from a dependent claim are not separated by any claim which does not also depend from the dependent claim. Withdrawal of the objection to the claims is respectfully requested.

The Office Action rejected claims 32-33, 35-36, and 16-21 under 35 U.S.C. § 112, second paragraph. More particularly, the Office Action stated that claims 32-33 and 35-36 recite the limitation "apparatus," without sufficient antecedent basis for such limitation in the claim. Further, the Office Action states that claims 16-21 recite the limitation "profile matrix," without sufficient antecedent basis for such limitation in the claim. Claims 32-33,

35-36 and 16-21 have been properly amended such that the claims recite the respective aforementioned limitations. Withdrawal of the rejection of claims 32-33, 35-36, and 16-21 under 35 U.S.C. § 112, second paragraph, is respectfully requested.

Claims 1-2, 4-5, 9-12, 15, 22-23, 25-26, 30-33, and 37-38 were rejected under 35 U.S.C. § 102(b) as being anticipated by Agrawal et al. (U.S. Pat. No. 5,768,500). The rejection is respectfully traversed.

Agrawal discloses a method and system for profiling computer system performance, and, more particularly, for *profiling the behavior of memory systems* in a processor (Agrawal: col. 2, lines 36-37; col. 8, lines 20-21). This is in direct contrast with the present invention, which discloses a method and apparatus for “*profiling computer program executions*,” as claimed in claims 1 and 23. The distinctiveness between profiles is further strengthened by the different purposes behind each type of profiling. Agrawal profiles the behavior of memory systems for the purpose of optimizing memory systems. Whereas, the present invention profiles computer program executions for enhancing computer program performance. To properly anticipate the claims, each and every claim limitation must be taught or suggested by Agrawal. Agrawal does not teach or suggest “*profiling computer program executions*,” as claimed in claims 1 and 23, and, as such, fail to anticipate the claims.

Furthermore, claim 1 has been amended to recite, *inter alia*, “assisting compilation of the computer program, based upon the profile counts stored in the memory array.” The Office Action states that col. 2, lines 47-55 of Agrawal teaches a method of assisting in the *optimization* of a program. Agrawal fails to teach “assisting *compilation* of the computer program. Similarly, Bala (U.S. Pat. No. 6,351,844) does not teach “assisting *compilation*

of the computer program.” As such, assuming, *arguendo*, that Agrawal and Bala can be properly combined, the combination of Agrawal and Bala do not teach “assisting compilation of the computer program,” as claimed in claims 1 and 23.

It is also submitted that there is no motivation to combine Agrawal and Bala. Bala discloses a method for selecting active traces in an executing program for translation into a translated code cache. The Office Action states that Bala discloses that an “object of the invention is to enable dynamic optimization of the code while the code is executing” (col. 2, lines 64-65). The Office Action, however, does not mention the additional details provided on col. 15, lines 3-7 of Agrawal: “the present invention may be applied to other applications, such as a dynamic optimizer where native program binary code can be optimized to improve performance, for which it is useful to identify hot traces and form cyclic traces.” Agrawal, as previously mentioned, discloses a method of monitoring memory system behavior. One of ordinary skill in the art would not combine the technique for optimizing native program binary code disclosed in Bala with the method of monitoring memory system behavior disclosed in Agrawal.

Accordingly, amended claim 1 is believed to be patentably distinct in view of Agrawal and Bala. Amended claim 23 is believed to be patentably distinct for at least the same reasons given for claim 1. Dependent claims 3-22 and 24-38 are believed to be allowable for at least the reasons given for claims 1 and 23, respectively. Newly added claims 39-42 are believed to be allowable as well. Withdrawal of the rejection of claims 1-38 under 35 U.S.C. §102(b) is respectfully requested.

In view of the foregoing remarks, it is respectfully submitted that all the claims now pending in the application are in condition for allowance. Early and favorable reconsideration is respectfully requested.

Respectfully submitted,

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